

**National Transportation Safety Board
Washington, DC 20594**

Brief of Accident

Adopted 05/13/2003

DEN03LA008 File No. 13323	10/19/2002	Grand Junction, CO	Aircraft Reg No. N315CL	Time (Local): 21:57 MDT		
Make/Model:	Diamond Aircraft Industries / DA20-C1			Fatal	Serious	Minor/None
Engine Make/Model:	Continental / IO-240-B3B		Crew	0	0	1
Aircraft Damage:	Substantial		Pass	0	0	1
Number of Engines:	1					
Operating Certificate(s):	None					
Type of Flight Operation:	Personal					
Reg. Flight Conducted Under:	Part 91: General Aviation					
Last Depart. Point:	Farmington, NM			Condition of Light:	Night	
Destination:	Same as Accident/Incident Location			Weather Info Src:	Weather Observation Facility	
Airport Proximity:	Off Airport/Airstrip			Basic Weather:	Visual Conditions	
				Lowest Ceiling:	None	
				Visibility:	10.00 SM	
				Wind Dir/Speed:	060 / 007 Kts	
				Temperature (°C):	9	
				Precip/Obscuration:	None / None	
Pilot-in-Command	Age: 21			Flight Time (Hours)		
Certificate(s)/Rating(s)				Total All Aircraft: 125		
Private; Single-engine Land				Last 90 Days: 8		
Instrument Ratings				Total Make/Model: 25		
None				Total Instrument Time: 13		

According to the pilot, they departed at 1830 with 18 gallons of fuel in the airplane, on a direct cross-country flight using the airplane's on-board GPS. During the flight, he noticed that he had a 20-knot tail wind. They arrived at their destination at 2000. Prior to the return flight, he checked the fuel using a stick and the fuel gauge. He identified that there was approximately 9.5 gallons of fuel remaining and decided not recheck his fuel burn rate. They departed at 2100. The pilot stated that while approximately 50 nautical miles south of their final destination, he rechecked the fuel burn rate and calculated it to be approximately 6 gallons per hour, but the fuel gauge did not reflect this. The fuel gauge was reading right at the one-quarter mark but should have been over one quarter. "I thought the fuel gauge was malfunctioning, and knew that we could land at nearby airport, but I decided not to." He also stated that it was less than an hour to their home field, and that even at one-quarter tank, it should be enough for a 45-minute reserve. At approximately 13 miles southeast of their home field, he contacted the tower, and was given clearance to land. While on final, the engine began to "sputter." He notified the tower that he was having "engine trouble," and they cleared him to land on any runway. At 7000 feet msl and on final for runway 04, the engine "quit completely." He attempted to hold altitude and restart the engine, but was unable to. Realizing he couldn't make it to the airport, he set up to make a forced landing on an Interstate Highway. He made a right turn to set up for the landing. The airplane struck a set of power lines at a 30-degree angle, and in a 20-degree right turn, knocked down two power poles, impacted a ditch, and came to a stop next to the highway. The pilot noticed the power lines lying across the airplane, he saw sparks, and a fire near the left wing. He unbuckled himself and his passenger and they both climbed out and walked up to the road. The wire strike, ground impact, post impact fire, and subsequent electrical power surge, destroyed the airplane.

Brief of Accident (Continued)

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Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: APPROACH

Findings

1. (F) FUEL SYSTEM - EXHAUSTION
2. (F) FUEL MANAGEMENT - INADEQUATE - PILOT IN COMMAND
3. (C) IN-FLIGHT PLANNING/DECISION - INADEQUATE - PILOT IN COMMAND
4. (C) PREFLIGHT PLANNING/PREPARATION - IMPROPER - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

5. (F) OBJECT - WIRE,TRANSMISSION

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. TERRAIN CONDITION - DITCH

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows.
The pilot's inadequate preflight and in-flight planning resulting in fuel mismanagement and fuel exhaustion.